

REMARKS

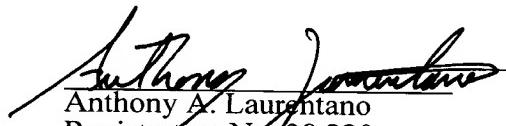
Applicants amend the claims to remove multiple dependencies, to provide proper antecedent basis, and to address other matters of form. The foregoing amendments introduce no new matter and are not related to issues of patentability.

Entry of the foregoing Preliminary Amendment is respectfully in order and requested.

If there are any questions regarding the amendments to the application, we invite the Examiner to call Applicants' representative at the telephone number below.

Respectfully submitted,

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Version With Markings To Show Changes Made

Please amend claims 3-6, 8-10, 12, 14 and 15 as follows:

1. A burner for fabricating aerosol doped waveguides, the burner including: a plurality of inlet ports each connected to a respective torch conduit, said torch conduit connecting its respective inlet port to a gas mixing region; and including a gas expansion chamber provided for at least one of said inlet ports upstream of said gas mixing region.
2. A burner as claimed in Claim 1, wherein the gas expansion chamber is in the form of a reservoir chamber.
3. A burner as claimed in ~~either preceding~~ claim 1, wherein the gas expansion chamber is located at the junction of an inlet port and the respective torch conduit.
4. A burner as claimed in Claim 1 ~~or 2~~, wherein the gas expansion chamber is located upstream of the junction between the inlet port and the respective torch conduit.
5. A burner as claimed in Claim 1 ~~or 2~~, wherein the gas expansion chamber is located downstream of the junction between the inlet port and the respective torch conduit.
6. A burner as claimed in ~~any preceding~~ claim 1, wherein said inlet ports feed oxygen, hydrogen, waveguide deposition material carried by a carrier gas, and aerosol droplets of a dopant ion solution carried by a carrier gas to the said burner.
7. A burner as claimed in Claim 6, wherein the hydrogen port is located downstream of the waveguide deposition material inlet port.
8. A burner as claimed in Claim 6 ~~or 7~~, wherein the aerosol inlet port is located downstream of the hydrogen inlet port.

9. A burner as claimed in ~~any one of~~ Claims 6 to 8, wherein the oxygen inlet port is located downstream of the aerosol inlet port.
10. A burner as claimed in ~~any preceding~~ claim 1, wherein said at least one inlet port is located in a radial plane with respect to a longitudinal axis of the burner which differs from a radial plane containing said other inlet ports.
11. A burner as claimed in Claim 10, wherein said at least one inlet port is located in a plane orientated at 180° to the radial plane of the other inlet ports.
12. A burner as claimed in ~~any preceding~~ claim 1, wherein said at least one inlet port is orientated at a first angle with respect to the burner axis, and wherein the other inlet ports are orientated at a second angle with respect to the burner axis, said first angle being less than said second angle.
13. A burner as claimed in Claim 12, wherein said first angle lies in the range 5° to 45°.
14. A burner as claimed in Claim 13 ~~12~~, wherein said first angle lies in the range 5° to 25°.
15. A burner as claimed in ~~any preceding~~ claim 1, wherein said at least one inlet port is an aerosol inlet port for providing aerosol droplets of a dopant ion solution to said burner.
16. ~~A burner substantially as described herein and with reference to Fig. 3 of the accompanying drawings.~~